**Bacterial Transformation Pre-lab**

**Directions:**

1. Go to the class website and download/open the Bacterial Transformation Lab pdf.

2. Read through the Introduction and “Transforming Bacteria with Recombinant Plasmids”.

3. *Answer questions* for **“What do you already know?”** page 85 from Introduction section.

4. Now, READ critically through the LABORATORY 5 instructions.

5. Identify the **dependent variable** and **independent variable**.

6. Identify any other variables that are being held constant in between your experimental and control groups.

7. State your **hypotheses** (predictions for each plate: LB, LB/amp, and LB/amp/ara) and WHY you think so. Use biological knowledge for support.

8. *Answer questions* for **“BEFORE THE LAB”** on page 91

\*\*\*READ CAREFULLY through the procedure steps 1-12.

9. *Answer questions from* “**Stop and Think”** on page 95

\*\*\*READ CAREFULLY through the rest of the procedure steps on how to plate your cells. This is extremely important so you know how to do the plating properly.

10. *Answer these last questions*:

Why open it like a clamshell?

How can you use only 2 spreaders even though you have three plates to spread?

Why do you have to gently pump the P+ tube?

Why do you incubate the plates upside down?

\*\*\*\*Check your understanding of the procedure and concepts by **WATCHING** the following videos from the class website:

***Transforming Competent Cells***

***Plating***

***Using Micropipettes***

***Bacterial Transformation***

*\*Teacher will give you a data sheet on lab day*

*\*This does not have to be done on graph paper.*